

CLAIMS

1. An information distribution server system adapted to distribute applications to radio portable terminals in accordance with download requests from the radio portable

5 terminals, each radio portable terminal being capable of utilizing an application downloaded via the Internet and a radio communication network, characterized by comprising:

a user information table for storing information regarding a user of each radio portable terminal;

10 a provider information table for storing information regarding a provider of each application;

a payment-status management table for managing the status of payment of a predetermined usage fee which each user stored in the user information table must pay for a 15 predetermined period;

a detection section for detecting the status of usage of each application;

a usage-status management table for storing the detected usage status; and

20 a computation section for calculating and outputting a license fee to be paid for each provider stored in the provider information table, on the basis of a ground total of usage fees grasped by the payment-status management table and the usage status stored in the usage-status 25 management table.

2. An information distribution server system according to claim 1, characterized in that

30 the detection section detects the application usage status on an application-by-application basis, and the usage-status management table stores the application usage status on an application-by-application basis; and

the computation section comprises:

35 an allotting section for allotting a portion of the ground total of usage fees grasped by the payment-status management table, as a ground total of license fees to be

paid to the providers; and

a distribution section for distributing and outputting, from the allotted ground total of license fees, a license fee to be paid for the provider of each application, in accordance with the usage status stored in the usage-status management table.

3. An information distribution server system according to claim 1, characterized in that

the detection section detects the application usage status on a user-by-user basis, and the usage-status management table stores the application usage status on a user-by-user basis; and

the computation section comprises:

an allotting section for allotting a portion of the usage fees paid by the users, as a license fee which the users must pay for the providers of the applications;

a distribution section for distributing and outputting, from the allotted license fee, a license fee that each user must pay for each provider, in accordance with the usage status stored in the usage-status management table; and

a calculation section for summing provider by provider the license fees distributed and output with respect to all the users in order to obtain a license fee to be paid to each provider.

4. An information distribution server system according to claim 1, characterized in that

the detection section counts a download count of the application in a predetermined period, and the usage-status management table stores the counted download count as a usage status; and

the computation section calculates the license fee on the basis of the download count stored in the usage-status management table.

5. An information distribution server system according to
claim 1, characterized in that

the detection section detects an execution time of
5 the application on the radio portable terminal, and the
usage-status management table stores the detected execution
time as a usage status; and

the computation section calculates the license fee on
the basis of the execution time stored in the usage-status
10 management table.

6. An information distribution server system according to
claim 5, characterized in that

the detection section regards as the execution time a
15 difference between a time of receipt from the radio
portable terminal of a notification indicating start of the
application and a time of receipt from the radio portable
terminal of a notification indicating end of the
application.

20 7. An information distribution server system according to
claim 1, characterized in that

the detection section detects an activation count of
the application on the radio portable terminal, and the
25 usage-status management table stores the detected
activation count as a usage status; and

the computation section calculates the license fee on
the basis of the activation count stored in the usage-
status management table.

30 8. An information distribution server system according to
claim 1, characterized in that

the detection section counts point number with which
the user voted for the application, and the usage-status
35 management table stores the counted point number as a usage
status; and

the computation section calculates the license fee on the basis of the point number stored in the usage-status management table.

- 5 9. An information distribution server system according to claim 8, characterized in that

an upper limit is provided for points that the user can use in a predetermined period, and an invalidating section is provided in order to invalidate a portion of the 10 points exceeding the upper limit such that that portion is not used as a usage status.

- 10 10. An information distribution server system according to claim 9, characterized by comprising:

15 a grasping section for grasping an application for which the user can perform point voting; and

a provision section for providing an ID of the grasped application to a predetermined terminal used by the user in response to a request from the user.

- 20 11. An information distribution server system according to claim 10, characterized in that

the grasping section grasps, as the application for which the user can perform point voting, an application 25 which was downloaded by the user in a predetermined period.

12. An information distribution server system according to claim 10, characterized in that

the grasping section grasps, as the application for 30 which the user can perform point voting, an application which was activated by the user in a predetermined period.

13. An information distribution server system according to claim 10, characterized in that

35 the grasping section grasps, as the application for which the user can perform point voting, an application for

which the user performed point voting in a predetermined period.

14. An information distribution server system according to
5 claim 8, characterized in that

the detection section detects the usage status through receipt of a point number with which the user voted for each application in a predetermined period; and

10 user can perform point voting for the application only when points contained in the received point number are for an application which was downloaded by the user in a predetermined point-input effective period, for an application which was activated by the user in the 15 predetermined point-input effective period, or for an application for which the user performed voting in the predetermined point-input effective period.

15. An information distribution server system according to
20 claim 8, characterized by comprising:

a selection section for forcing the user to select an application for which the points are voted;

25 a judgement section for judging on a user-by-user basis whether the user can perform point voting for the selected application; and

an error transmission section for transmitting data including an error message to a predetermined terminal used by the user when the selected application is judged to be an application for which the user cannot perform point 30 voting.

16. An information distribution server system according to claim 1, characterized in that

the detection section detects at least two among a download count of the application in a predetermined period, 35 an activation count of the application on the radio

portable terminal, an execution time of the application on the radio portable terminal, and a point number with which the user voted for the application;

the usage-status management table stores as

- 5 parameters at least two detection values detected by the detection section; and

the computation section calculates the license fee on the basis of a predetermined calculation formula combined with the at least two parameters.

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17. An information distribution server system according to claim 1, characterized by comprising:

a communication section for performing data communication with an internet terminal which can be connected directly to the Internet without use of a radio communication network; and

a search/output section for searching the application in response to a request transmitted from the internet terminal via the communication section and for outputting a search result to the internet terminal via the communication section, the search result including at least the application name of the application and a description of contents of the application.

25 18. An information distribution server system according to claim 17, characterized by comprising

a mail transmission section, in response to a request from the internet terminal, the mail transmission section generating an electronic mail including address information necessary for downloading the application to the radio portable terminal.

19. An information distribution server system according to claim 18, characterized by comprising

35 a screen generation section for generating screen data of a screen for displaying on the internet terminal

the search result output from the search/output section, the screen data including data for disposing on the screen a predetermined button for sending an electronic mail to the radio portable terminal of the user, and characterized
5 in that

the mail transmission section detects operation of the button by the user, generates an electronic mail in response to detection of the button operation, the electronic mail including a URL for downloading to the
10 radio portable terminal an application indicated by the search result, and transmits the electronic mail to the radio portable terminal.

20. An information distribution server system according to
15 claim 1, characterized by comprising

a payable amount output section, only when the license fee calculated by the computation section is not less than a predetermined amount, the payable amount output section outputting to the provider the license fee as a
20 payable license fee.

21. An information distribution server system according to
claim 20, characterized in that

the payable amount output section comprises:
25 a totaling section for totaling the license fees calculated by the computation section over a predetermined period; and
an output section for outputting the totaled license fee as a payable license fee, only when the totaled license
30 fee is not less than the predetermined amount.

22. An information distribution server system according to
claim 1, characterized in that

the payment status of each user is stored in the
35 payment-status management table.

23. An information distribution server system according to claim 1, characterized in that

a total of usage fees paid by each user is stored in the payment-status management table.

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24. An information distribution server system according to claim 1, characterized in that

the usage fee is constant among all users.

10 25. An information distribution server system according to claim 1, characterized in that

the usage fee is constant within each of user groups into which users are classified in accordance with predetermined criteria.

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26. An information distribution server system according to claim 1, characterized in that

the detection section counts a download count of the application in a predetermined period, and the usage-status management table stores on a user-by-user basis the counted download count as a usage status; and

a prohibition control section is provided in order to prohibit a user to download the application when the download count which was counted for the user in the predetermined period exceeds a predetermined upper limit.

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27. An information distribution server system according to claim 1, characterized in that

the detection section detects an execution time of the application in a predetermined period, and the usage-status management table stores on a user-by-user basis the execution time as a usage status; and

30 a prohibition control section is provided in order to prohibits the cellular phone 10 of a user to download or execute the application when the execution time which was detected for the user in the predetermined period exceeds a

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predetermined upper limit.

28. An information distribution server system according to claim 1, characterized in that

5 the detection section counts an activation count of the application in a predetermined period, and the usage-status management table stores on a user-by-user basis the counted activation count as a usage status; and

10 a prohibition control section is provided in order to prohibits the cellular phone 10 of a user to download or execute the application when the activation count which was detected for the user in the predetermined period exceeds a predetermined upper limit.

15 29. An information distribution server system according to claim 8, characterized in that

 the application includes a program for displaying on the radio portable terminal a point input interface for enabling the user to perform point voting; and

20 the detection section detects the usage status by receiving via the Internet a point number which is input by the user on the point input interface displayed on the radio portable terminal when the terminal executes the application.

25 30. An information distribution server system according to claim 29, characterized in that

 the detection section detects the usage status through receipt of a point number with which the user voted 30 for each application in a predetermined period; and

 a judgment section is provided which judges that the user can perform point voting for the application only when points contained in the received point number are points for an application which was downloaded by the user in a predetermined point-input effective period, points for an application which was activated by the user in the

predetermined point-input effective period, points for an application for which the user performed voting in the predetermined point-input effective period; or points which were input through a point input interface corresponding to
5 the application.

31. An information distribution server system according to claim 1, characterized by comprising:

10 a server application storage section for storing a plurality of server applications each being capable of communicating with an application downloaded to the radio portable terminal;

15 a common database commonly accessed by the plurality of server application; and

a limiting section for limiting an accessible table area of the common database for each server application.

32. An information distribution server system according to claim 1, characterized by comprising:

20 a server application storage section for storing a plurality of server applications each being capable of communicating with an application downloaded to the radio portable terminal;

25 a common database commonly accessed by the plurality of server application; and

a limiting section for limiting an accessible table area of the common database for each application provider.

33. An information distribution server system according to claim 1, characterized by comprising:

a server application storage section for storing a plurality of server applications each being capable of communicating with an application downloaded to the radio portable terminal; and

35 a common process interface which can access data stored in the user information table, wherein

the server application access the user information table by use of the common process interface.

34. An information distribution method for distributing

- 5 applications to radio portable terminals in accordance with download requests from the radio portable terminals, each radio portable terminal being capable of utilizing an application downloaded via the Internet and a radio communication network, characterized by comprising:

10 a usage-fee storing step for storing the status of payment of a predetermined usage fee which the user of each radio portable terminal must pay for a predetermined period;

15 a usage-status detecting step for detecting the status of usage of the application; and

a usage-status storing step for storing the detected usage status; and

20 a computation step for calculating a license fee to be paid for each provider stored in the provider information table, on the basis of the stored ground total of usage fees and the stored usage status and for outputting the license fee.

35. An information distribution method according to claim

- 25 34, characterized in that

the detection step detects the application usage status on an application-by-application basis;

the usage-status storing step stores the application usage status on an application-by-application basis; and

30 the computation step comprises:

a step for allotting a portion of the stored ground total of usage fees as a ground total of license fees to be paid to the providers; and

35 a step for distributing and outputting, from the allotted ground total of license fees, a license fee to be paid for the provider of each application, in accordance

with the stored usage status.

36. An information distribution method according to claim 34, characterized in that

5 the detection step detects the application usage status on a user-by-user basis;

the usage-status storing step stores the application usage status on a user-by-user basis; and

the computation step comprises:

10 a step for allotting a portion of the usage fees paid by the users as a license fee which the users must pay for the providers of the applications;

a step for distributing and outputting, from the allotted license fee, a license fee that each user must pay 15 for each provider, in accordance with the stored usage status; and

a step for summing provider by provider the license fees distributed and output with respect to all the users in order to obtain a license fee to be paid to each 20 provider.

37. A computer-readable recording medium on which is recorded a program for causing a computer to perform the information distribution method according to claim 34.

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38. A computer-readable recording medium on which is recorded a program for causing a computer to perform the information distribution method according to claim 35.

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39. A computer-readable recording medium on which is recorded a program for causing a computer to perform the information distribution method according to claim 36.